

MONTHLY WEATHER REVIEW.

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INTRODUCTION.

The REVIEW for November, 1894, is based on reports from 3,223 stations occupied by regular and voluntary observers. These reports are classified as follows: 149 reports from Weather Bureau stations; 36 reports from U. S. Army post surgeons; 2,241 monthly reports from State Weather Service and voluntary observers; 32 reports from Canadian stations; 219 reports through the Southern Pacific Railway Company; 502 marine reports through the cooperation of the Hydrographic Office, Navy Department, and "New York Herald Weather Service;" monthly reports from 37 U. S.

Life-Saving stations; 39 reports from navigators on the Great Lakes; monthly reports from local services established in all States and Territories; and international simultaneous observations. Trustworthy newspaper extracts and special reports have also been used.

The WEATHER REVIEW for this month has been prepared under the general editorial supervision of Prof. Cleveland Abbe. Unless otherwise specifically noted, the text is written by the Editor, but the statistical tables are furnished by the Division of Records and Meteorological Data, in charge of Mr. A. J. Henry, acting chief of that division.

CHARACTERISTICS OF THE WEATHER FOR NOVEMBER, 1894.

The most prominent features of the month of November were the sudden development of the storm of the 5th on the coast of New Jersey; the severe storms of the 2d, 9th, 10th, 11th, and 26th in the Lake region; the general deficiency of precipitation in the middle and southern portions of the United States; and the excess of temperature from the Pacific coast eastward to the one hundredth meridian. The prevailing

characteristic of the month was the persistent motion of high areas and the formation of ridges of high pressure from Oregon southeastward to the Gulf and south Atlantic States with a small depression on the southwest side of this ridge and numerous depressions on its northeast side, from which there resulted an average distribution of pressure as shown on Chart II, characterized by a distinct ridge of high pressure from Oregon, Nevada, and Idaho southeast to Georgia.

ATMOSPHERIC PRESSURE.

[In inches and hundredths.]

The distribution of mean atmospheric pressure reduced to sea level, as shown by mercurial barometers not reduced to standard gravity and as determined from observations taken daily at 8 a. m. and 8 p. m. (seventy-fifth meridian time), during November, 1894, is shown by isobars on Chart II. That portion of the reduction to standard gravity that depends on latitude is shown by the numbers printed on the right-hand border. This Chart also gives the so-called resultant wind directions for this month, based on the data given in Table IX of this REVIEW.

During the current month of November the highest mean pressures have been: 30.29, Salt Lake City; 30.26, Idaho Falls, Winnemucca, and Carson City; 30.25, Atlanta, Montgomery, and Mobile; 30.24, Charleston, Meridian, and El Paso. Lowest mean pressures: 29.89, Sydney, N. S.; 29.91, Father Point, Que.; 29.93, St. Johns, N. F.; 29.95, Halifax, N. S., and Eastport.

The normal distribution of atmospheric pressure and normal resultant wind direction for the month of November were approximately shown on Chart V of the REVIEW for November, 1893, as computed by Prof. H. A. Hazen, and are not now reproduced. As compared with the normal for

November, the mean pressure for the current month was deficient in Nova Scotia, Quebec, Maine, northern New York, and nearly the whole of Canada, and in excess over the whole of the rest of the country. The maximum excesses were: 0.12, Tatoosh Island and Port Angeles; 0.11, Mobile; 0.10, New Orleans, Galveston, and Jacksonville.

As compared with the preceding month of October, the pressures, reduced to sea level, show a maximum rise of 0.25 at Huron, Moorhead, and Sioux City, 0.24 at St. Paul, Omaha, and Concordia, and a maximum fall of 0.09 at Sydney, N. S., 0.06 at Charlottetown, P. E. I., and 0.05 at Chatham, N. B.

DIURNAL VARIATIONS.

The systematic periodic diurnal variations of pressure are shown by the hourly means given in Table VI.

AREAS OF HIGH AND LOW PRESSURE.

The following sections give some details as to the phenomena attending the individual areas of high and low pressure. Hitherto it has been customary to enumerate the storm wind signals in connection with special areas of low pressure. During the summer months high winds occur in connection with areas of low pressure, or so-called storm centers, but during